Mars Exploration Science Monthly Newsletter

A publication of the Mars Program Office and the Mars Exploration Program Analysis Group (MEPAG)

May 2018

Mars Science News

MEPAG Meeting 36 Presentations, Summary, and Findings are posted

Thank you to all who attended MEPAG Meeting 36! This meeting was held Tuesday-Thursday, April 3-5, 2018, at the Crystal City Marriott at Reagan National Airport, in Arlington, VA. A total of 135 people attended in-person, and there were nearly 100 unique Adobe Connect logins each day.

The forum held on Day I was well-attended and very energetic, with >80 people engaging in discussion around 31 posters covering wide-ranging science and mission concept topics. From the forum posters and discussion, further discussion was held during meeting days 2 and 3 regarding potential MEPAG plans and priorities in preparation for the next Planetary Science Decadal Survey (spanning 2023-2032). Such discussion were one input into overall MEPAG future planning and the MEPAG Meeting 36 Findings; MEPAG has delivered the latter to the Planetary Science Advisory Committee (PAC) Chair and the NASA PSD Director. Presentations included reports for operating and planned Mars missions (by NASA and other space agencies), discussions regarding proposed changes to the MEPAG Goals Document from the polar science community, updates on the NASA PESTO and Smallsat programs, the expected Planetary Decadal Survey Committee schedule, and reports from recent and planned Mars-relevant workshops and conferences.

Nearly all meeting presentations have been added to the meeting webpage (https://mepag.jpl.nasa.gov/meetings.cfm? expand=m36). The Meeting Summary and Findings has also been finalized and posted. Also available are all forum abstracts and, for some presentations, e-poster files.

Comments or questions, regarding the meeting, the Summary, or future MEPAG activities, can be sent to MepagMeetingOs@jpl.nasa.gov. And we hope you will join us at the virtual meeting(s) that we expect to hold this summer.

The 4th Landing Site Workshop for the Mars 2020 Rover Mission is scheduled

October 16-18, 2018 @ Glendale, CA, USA

The first announcement for the Fourth Landing Site Workshop for the Mars 2020 Rover Mission is now available: https://marsnext.jpl.nasa.gov/workshops/wkshp_2018_10.cfm. This workshop is being planned for October 16-18, 2018, at the Hilton Los Angeles North/Glendale in Glendale, CA. The workshop will focus on discussion of the science potential of the three remaining candidate sites under consideration: Columbia Hills, Jezero Crater, and NE Syrtis.

New results related to analyses of the science potential of the sites as well as presentations on potential extended mission targets at each of the final sites are encouraged. We anticipate that the Mars 2020 Project will provide detailed mission scenarios for each site that includes discussion of potential exploration targets, observations, and sampling strategies relative to mission goals and important Mars science described in the 2013-2022 Planetary Science Decadal Survey. A community assessment will be made at the end of the workshop for the final three candidate landing sites and will be factored into subsequent deliberations that will conclude with the Mars 2020 Project recommendation of the landing site to NASA Headquarters.

- Additional details related to the workshop, such as hotel room block and webcast information, and a call for workshop
 presentations will be posted during the upcoming summer.
- For those planning to attend in-person and who typically forecast for conference attendance, please put your forecast into your institution's system for NCTS# 34492-19 before May 18.

A note about the newsletter schedule

Over the last year, the Mars Exploration Science Monthly Newsletter release date drifted to (and sometimes past) the middle of the month. We now again aim to release the newsletter close to the start of the month, and thus have skipped the April 2018 edition. We apologize for any inconvenience.

NASA & ESA Statement of Intent (SOI) to develop joint Mars Sample Return plan

A message from Jim Watzin, the NASA Mars Exploration Program Director, regarding a NASA and ESA signed Statement of Intent (SOI) to jointly develop a Mars Sample Return plan, has been posted to the MEPAG website under NASA HQ Announcements: https://mepag.jpl.nasa.gov/announcements.cfm?expand=hq. This SOI was announced at the 2nd International Mars Sample Return Conference.

Summer school/workshop "Microsatellites in planetary and atmospheric research"

August 6-11, 2018 @ Tartu, ESTONIA

This early career scientist workshop/summer school aims to

- · Give participant an overview into the most pivotal research questions in planetary and atmospheric sciences
- Highlight the possible potential of microsatellites in those areas
- Explore novel applications of microsatellites in a multitude of different fields including astronomy, planetary and atmospheric sciences, geosciences and astrobiology
- Foster the interaction between space researchers and technologists
- Allow participants to start the design and planning of new space missions
- Contribute to the training of a new generation of space researchers

The course will consist of lectures by leading scientists, planning of a micro- or nanosatellite project in small groups as well as open discussions. Participants will also have the possibility to display their own research results in a poster session. Furthermore, a half-day excursion to interesting sites in the area (Ice Age Museum, Lake Peipus) and a walk in Tartu are included as a social programme. The event is open to applicants from all nationalities. Detailed information about the summer school and the application procedure (deadline 31 May 2018) can be found at http://www.nordicastrobiology.net/Tartu2018.

Congratulations to FY18 MPO Travel Awardees

The NASA Mars Program Office has made available travel awards during FY18 for a number of meetings and workshops. We congratulate and recognize the awardees!

- Students, for presentation at the Fourth International Conference on Early Mars Sam Holo at University of Chicago, Ashley Palumbo at Brown University, and Kaushik Mitra at Washington University in St. Louis.
- Early Career scientists/engineers, for presentation and participation at <u>MEPAG Meeting 36</u> **Dr. Isaac Smith** at the Planetary Science Institute
- Students, for presentation at the <u>2nd International Mars Sample Return Conference</u> **Andrew Gangidine** at University of Cincinnati.
- Students, for presentation at the upcoming <u>Mars Workshop on Amazonian and Present-day Climate</u> Ali Bramson at
 University of Arizona, Stefano Nerozzi at University of Texas at Austin, Alyssa Pascuzzo at Brown University, and Jacob Widmer at University of Maryland.

We expect the next MPO student travel grant call to be for the Late Mars Workshop, to be held October 1-3, in Houston, TX.

Near-term Due Dates (next three months)

Due	Project
May 4	Space Resources Roundtable, Registration Deadline
May 8	81st Annual Meeting of The Meteoritical Society, Abstract Deadline
May 8	Ninth Moscow International Solar System Symposium (9M-S3), Abstract Deadline
May 11	9th Annual Lunar and Small Bodies Graduate Conference (LunGradCon 2018) Abstract Deadline. Registration Deadline
May 16	European Planetary Science Congress (EPSC) 2018, Abstract Deadline
May 18	Mars Workshop on Amazonian and Present Day Climate, Registration Deadline
May 25	Mars Workshop on Amazonian and Present Day Climate, Hotel Block Deadline
June I	International Symposium on Lunar & Planetary Science, Registration Deadline
June 13	Comparative Climatology of Terrestrial Planets III, Abstract Deadline
June 15	COSPAR 2018, Registration Deadline
July I	European Astrobiology Conference (EANA 2018), Abstract Deadline
July 5	European Planetary Science Congress (EPSC) 2018, Registration Deadline
July 15	European Astrobiology Conference (EANA 2018), Registration Deadline
July 18	Late Mars Workshop, Abstract Deadline
July 30	Comparative Climatology of Terrestrial Planets III, Registration Deadline

Upcoming Conferences and Workshops 2018

A note about "conferences" and this calendar of events

- Missing NCTS#s (and forecasting deadline, if anomalous) can be sent to Barbara Saltzberg (<u>Barbara.A.Saltzberg@jpl.nasa.gov</u>).
- If no deadline is noted: it is usually 90 days in advance sometimes further in advance if the conference is "Heavily Attended."
- Please do not assume our noting of NCTS# is complete. If you are unsure whether an event is a conference or not, or when the forecasting deadline may be, please consult with your NASA Center conference forecasting/travel unit.

Second Quarter, 2018			
May 1-3, 2018 Mercury Conference Columbia, MD, USA https://www.hou.usra.edu/meetings/mercury2018/			
	May 5, 2018 Vandenberg AFB, CA, USA	Insight launch window opens	
	May 8-10, 2018 Washington, DC, USA	Humans to Mars Summit https://h2m.exploremars.org/	

		Second Quarter, 2018, cont.
	May 7-11, 2018 Pasadena, CA, USA	Differentiation: Building the Internal Architecture of Planets, NCTS# 28518-18 https://www.hou.usra.edu/meetings/differentiation2018/
	May 14-18, 2018 Noordwijk, The Nether- lands	52nd ESLAB Symposium - Comparative aeronomy and plasma environment of terrestrial planets https://atpi.eventsair.com/QuickEventWebsitePortal/52nd-eslab-symposium-comparative-aeronomy-of-terrestrial-planets/52ndeslabwebsite
	May 14-16, 2018 Toulouse, France	6th European Lunar Symposium https://els2018.arc.nasa.gov/
	May 14-17, 2018 Kobe, Japan	9th Workshop on Catastrophic Disruption in the Solar System (CD9) http://www.impact-res.org/CD2018/Catastrophic_Disruption_2018/Welcome.html
	May 15-17, 2018 Flagstaff, AZ USA	2018 Cordilleran & Rocky Mountain Sectional Meeting of the Geological Society of America http://www.geosociety.org/GSA/Events/Section_Meetings/GSA/Sections/rm/2018mtg/home.aspx Planetary sessions: T21 Recent Advances in Planetary Geoscience / T22 Earth as a Stepping Stone for Planetary Exploration / T23 Integrating Composition and Morphology / T24 Understanding Basin Environments and Evolution Beyond Earth Field trip: The Holey Tour: Planetary Analog Sites of Northern Arizona
	May 15-16, 2018 Houston, TX, USA	Closing Planetary Protection Knowledge Gaps for Future Human Missions https://planetaryprotection.nasa.gov/humanworkshop2018
	May 16-18, 2018 Orleans, France	Advances in Space Mass Spectrometry for the Search of Extraterrestrial Signs of Life http://www.lestudium-ias.com/event/advances-space-mass-spectrometry-search-extraterrestrial-signs-life-0
	May 21-24, 2018 Houston, TX, USA	Ocean Worlds 3: Water-silicate Interactions https://www.hou.usra.edu/meetings/oceanworlds2018/
	May 29-30, 2018 Paris, France	iCubeSat 2018 - The 7th Interplanetary CubeSat Workshop https://icubesat.org/
	June 3-8, 2018 Honolulu, HI, USA	Asia Oceania Geosciences Society http://www.asiaoceania.org/aogs2018/public.asp?page=home.htm Session Title: New views of ancient Mars
	June 4-5, 2018 Troy, NY, USA	Ist Annual RPI Workshop on Image-Based Modeling and Navigation for Space Applications http://mane.rpi.edu/space-imaging-workshop
New!	June 5-7, 2018 Houston, TX, USA	Cryovolcanism in the Solar System https://www.hou.usra.edu/meetings/cryovolcanism2018/
	June 11-15, 2018 Boulder, CO, USA	I5th International Planetary Probe Workshop (IPPW-I5) https://www.colorado.edu/event/ippw2018/
	June 12-14, 2018 Knoxville, TN, USA	Planetary Geologic Mappers Annual Meeting https://www.hou.usra.edu/meetings/pgm2018/
	June 12-15, 2018 Golden, CO, USA	Space Resources Roundtable http://www.csmspace.com/events/srr/
	June 12-15, 2018 Golden, CO, USA	Planetary & Terrestrial Mapping Sciences Symposium https://www.deltion.ca/ptmss
	June 12-15, 2018 Pasadena, CA, USA	Geobiology 2018 http://web.gps.caltech.edu/GBcourse/
New!	June 12-15, 2018 Macau, China	International Symposium on Lunar & Planetary Science http://www.ssi.must.edu.mo/ISLPS2018/

		Second Quarter, 2018 cont.
	June 13-14, 2018 College Park, MD	19th Meeting of the NASA Small Bodies Assessment Group, NCTS# 33683-18 https://www.lpi.usra.edu/sbag/
	June 18-22, 2018 Lakewood, CO, USA	Mars Workshop on Amazonian and Present Day Climate, NCTS# 31858-18 https://www.hou.usra.edu/meetings/amazonian2018/
	June 19-22, 2018 Kharkiv, Ukraine	Atmosphereless Solar System Bodies in the Space Exploration Era http://www.astron.kharkov.ua/conference/ssb/18/index.php
	June 23–July 1, 2018 Chamonix, France	EUCOP 2018: 5th European Conference on Permafrost, NCTS# 32179-18 https://eucop2018.sciencesconf.org/
	June 23–July 1, 2018 Petnica, Serbia	Workshop in Geology and Geophysics in the Solar System http://petnica.rs/planetary2017/
New!	June 25, 2018 Moffett Field, CA, USA	9th Annual Lunar and Small Bodies Graduate Conference (LunGradCon 2018) http://impact.colorado.edu/lungradcon/2018/
	June 25-29, 2018 Rotorua, New Zealand	Astrobiology Australasia Meeting, NCTS# 33508-18 Astrobiology Australasia Meeting
	June 25-29, 2018 Bordeaux, France	International Conference on Aeolian Research (ICAR), NCTS# 32552-18 https://colloque.inra.fr/icar2018/Program There is a special session on Planetary Aeolian Research.
	June 26-28, 2018 Moffett Field, CA, USA	NASA Exploration Science Forum 2018, NCTS# 32417-18 https://nesf2018.arc.nasa.gov/

Third Quarter, 2018				
	July 1-9, 2018 Denham, Australia	Astrobiology Grand Tour Astrobiology Grand Tour		
	July 14-22, 2018 Pasadena, CA, USA	42nd COSPAR Scientific Assembly NCTS# 28500-18 http://cospar2018.org/		
	July 22-27, 2018 Moscow, Russia	81st Annual Meeting of The Meteoritical Society, NCTS# 32898-18 http://metsoc81-moscow.ru/		
New!	July 29, 2018 Cambridge, MA, USA	Exoplanet Exploration Program Analysis Group (ExoPAG) meeting https://exoplanets.nasa.gov/exep/events/205/exopag-18/		
	August 7-9, 2018 Laurel, MD, USA	Lunar Polar Volatiles, NCTS# 32572-18 https://www.hou.usra.edu/meetings/lunarvolatiles2018/		
	August 8-10, 2018 Boulder, CO, USA	The 9 th Planetary Crater Consortium http://www.planetarycraterconsortium.nau.edu/		
	August 12-17, 2018 Boston, MA, USA	Goldschmidt Conference 2018, NCTS# 32184-18 https://goldschmidt.info/2018/ Session: I I d: From Source to Sink - Geochemical Sulfur Cycles on Earth and Mars		
New!	August 12-17, 2018 Boulder, CO, USA	Cassini Science Symposium http://lasp.colorado.edu/home/2018-cassini-science-symposium		
	August 15-17, 2018 Fayetteville, AR, USA	Experimental Analysis of the Outer Solar System Workshop, NCTS# 33887-18 https://www.hou.usra.edu/meetings/exoss2018/		
	August 27-30, 2018 Houston, TX, USA	Comparative Climatology of Terrestrial Planets III, NCTS# 32374-18 https://www.hou.usra.edu/meetings/climatology2018/		

Third Quarter, 2018				
	September 11-14, 2018 Niseko, Japan	International Venus Conference 2018, NCTS# 31333-18 https://www.cps-jp.org/~akatsuki/venus2018/		
New!	September 11-12, 2018 Pasadena, CA USA	Outer Planets Assessment Group (OPAG) Meeting https://www.lpi.usra.edu/opag/		
New!	September 12-13, 2018 Berlin, Germany	International Workshop on Instrumentation for Planetary Missions (IPM) 2018 NCTS# 34186-18 https://ipm2018.org/		
	September 12-14, 2018 Irvine, CA, USA	NASEM Committee on Astrobiology and Planetary Science (CAPS) http://sites.nationalacademies.org/SSB/SSB_067577#Meetings_and_Events		
New!	September 16-21, 2018 Berlin, Germany, USA	European Planetary Science Congress (EPSC) 2018, NCTS# 32031-18 https://www.epsc2018.eu/		
	September 24-27, 2018 Honolulu, HI, USA	Multispectral, Hyperspectral, and Ultraspectral Remote Sensing Technology, Techniques and Applications VII http://spie.org/AE/conferencedetails/multispectral-hyperspectral-and-ultraspectral-remote-sensing?SSO=1		
	September 24-28, 2018 Berlin, Germany	European Astrobiology Conference (EANA 2018) http://www.eana-net.eu/index.php?page=Conferences/EANA2018		
	Sept. 30-Oct. 3, 2018 Flagstaff, AZ, USA	Bombardment: Shaping Planetary Surfaces and Their Environments, NCTS# 28520-18 http://www.lpi.usra.edu/first-billion-years/		

Fourth Quarter, 2018				
	October 1-3, 2018 Houston, TX, USA	Late Mars Workshop, NCTS# 34492-19 https://www.hou.usra.edu/meetings/latemars2018/		
	October 8-12, 2018 Moscow, Russia	Ninth Moscow International Solar System Symposium (9M-S3)		
New!	October 16-18 Glendale, CA, USA	4th Mars 2020 Rover Landing Site Selection Workshop, NCTS# 34492-19 https://marsnext.jpl.nasa.gov/workshops/wkshp_2018_10.cfm		
New!	October 21-26, 2018 Knoxville, TN, USA	50th Meeting of the AAS Division for Planetary Sciences https://aas.org/meetings/dps50		
New!	November 4-7, 2018 Indianapolis, IN, USA	2018 GSA Annual Meeting https://www.geosociety.org/GSA/Events/Annual_Meeting/GSA/Events/gsa2018.aspx Session: Planetary Aeolian Geology from Outcrop to Orbit: Nathan Bridges Memorial		
	November 6-8, 2018 Laurel, MD, USA	I 6th Venus Exploration Analysis Group meeting https://www.lpi.usra.edu/vexag/		
	November 26, 2018	Insight landing		
	December 10-14, 2018 Washington, DC, USA	American Geophysical Union Fall Meeting https://fallmeeting.agu.org/2017/		

Seasons on Mars				
	MY34	MY35	MY36	
Start of Northern Spring / L_s 0	5/05/2017	3/23/2019	2/07/2021	
Start of Northern Summer / L_s 90	11/20/2017	10/08/2019	8/25/2021	
Start of Northern Autumn / L_s 180	5/22/2018	4/08/2020	2/24/2022	
Start of Northern Winter / L _s 270	10/16/2018	9/02/2020	7/21/2022	

Special holidays to consider when scheduling conferences/workshops/meetings				
Good Friday	3/30/2018	4/19/2019	4/10/2020	4/2/2021
Rosh Hashanah	9/10/2018	9/30/2019	9/19/2020	9/7/2021
Yom Kippur	9/19/2018	10/09/2019	9/28/2020	9/16/2021
(Note th	at Jewish holidays star	t at sundown the previ	ous evening)	
Thanksgiving Day, Canada	10/08/2018	10/14/2019	10/12/2020	10/11/2021
Thanksgiving Day, U.S.	11/22/2018	11/28/2019	11/26/2020	11/25/2021
Christmas Day	12/25/2018	12/25/2019	12/25/2020	12/25/2021

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Please send Mars Community Announcements and calendar items for inclusion in next month's newsletter to:

Barbara Saltzberg at Barbara Saltzberg@jpl.nasa.gov

This newsletter (and all previous months') is also posted on the MEPAG website: http://mepag.jpl.nasa.gov

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